

Listing of All Claims Including Current Amendments

1-68. (cancelled).

69. (new) A system for regulating the supply of power to a vehicle's brake system, comprising:

an engine;

a supply device driven by said engine for supplying an agency;

a motor driven by the agency supplied by said supply device;

a brake power source driven by said motor;

a brake system powered by said brake power source; and

an electronic control unit in communication with said supply device that controls that rate at which the agency is supplied by said supply device;

wherein said electronic control unit has at least one input for receiving signals containing information reflecting air pressure; and

wherein said electronic control unit determines the rate at which to cause said supply device to supply the agency to said motor based at least in part on the received information, thereby causing said motor to drive said brake power source at a desired rate.

70. (new) The system as claimed in claim 69, wherein:

said supply device comprises a hydraulic pump for supplying fluid; and

said motor comprises a hydraulic motor driven by the fluid.

71. (new) The system as claimed in claim 70, further comprising a reservoir for receiving fluid from said motor and from which said pump receives the fluid.

72. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting the revolutions per minute of said engine's crankshaft.

73. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting throttle position.

74. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting the rate of rotation of at least one of the wheels.

75. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting voltage.

76. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting temperature in an air dryer.

77. (new) The system as claimed in claim 69, wherein said electronic control unit further includes an input for receiving information reflecting the speed of said motor.

78. (new) The system as claimed in claim 69, wherein said brake power source is a source of pressurized fluid.

79. (new) The system as claimed in claim 78, wherein said source of pressurized fluid is an air compressor.

80. (new) The system as claimed in claim 79, wherein said air compressor is a swash plate compressor.

81. (new) The system as claimed in claim 80, wherein said compressor comprises:

- a cylinder block having at least one piston channel therein;
- a swash plate housing mounted adjacent to said cylinder block;
- a shaft disposed in said swash plate housing and cylinder block;
- a swash plate mounted on said shaft;
- at least one piston coupled to said swash plate and disposed in said at least one piston channel and slidable therein; and
- an actuator contacting said swash plate, such that said actuator, in a first position, exerts a force on said swash plate appropriate to retain said swash plate in a position perpendicular to said drive shaft, such that said at least one piston remains idle,

and, in a second position, exerts a force on said swash plate appropriate to pivot said swash plate, thereby causing reciprocal motion of said at least one piston when said actuator rotates.

82. (new) The system as claimed in claim 78, wherein said brake system comprises:

a reservoir for receiving the pressurized fluid from said source of pressurized fluid;

a braking mechanism;

a valve connecting said reservoir to said braking mechanism; and

a valve actuator connected to said valve for governing the flow of the pressurized fluid from said reservoir to said braking mechanism.

83. (new) The system as claimed in claim 82, wherein the vehicle includes a rotating surface and said braking mechanism comprises:

a contact device for contacting the rotating surface and thereby creating friction;
and

a contact device actuator for causing said contact device to contact the rotating surface.

84. (new) The system as claimed in claim 83, wherein said contact device comprises a brake shoe.

85. (new) The system as claimed in claim 83, wherein said contact device actuator comprises a piston.

86. (new) The system as claimed in claim 83, wherein said contact device actuator comprises a spring.

87. (new) The system as claimed in claim 69, wherein:
said supply device comprises a generator for supplying electricity; and
said motor comprises an electric motor driven by the electricity.

88. (new) The system as claimed in claim 69, wherein said brake power source is a source of electricity.

89. (new) The system as claimed in claim 89, wherein said brake power source is an electric generator.

90. (new) The system as claimed in claim 89, wherein said brake system comprises:
a braking mechanism;
a switch connecting said source of electricity to said braking mechanism; and
a switch actuator connected to said switch for governing the flow of the electricity from said source of electricity to said braking mechanism.

91. (new) A system for regulating the supply of power to a vehicle's brake system, comprising:

an engine;

a supply device driven by said engine for supplying an agency;

a motor driven by the agency supplied by said supply device;

a brake power source driven by said motor;

a brake system powered by said brake power source; and

a controller in communication with said supply device that controls that rate at which the agency is supplied by said supply device;

wherein said controller has at least one input for receiving signals containing information reflecting the temperature in an air dryer; and

wherein said controller determines the rate at which to cause said supply device to supply the agency to said motor based at least in part on the received information, thereby causing said motor to drive said brake power source at a desired rate.